WASTE TREATMENT LAGOON

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 359

WASTE TREATMENT LAGOON

A waste treatment lagoon is an impoundment made by excavation or earth fill to provide storage for biological treatment of animal or other agriculture waste.

PRACTICE INFORMATION

The purpose of this practice is to store and biologically treat organic waste, reduce pollution, and protect water quality.

This practice applies under the following conditions:

1. Where a complete waste management system has been planned.
2. Waste generated by agriculture production and/or processing needs treatment.
3. A suitable location is available.
4. The soils are suitable for retaining the waste or can be sealed to prevent seepage.
5. A water supply is adequate maintain the design depth of water in the lagoon.

The three general types of waste treatment lagoons are the following:

1. Anaerobic - require less surface area than naturally aerobic lagoons but may give off offensive odors.
2. Naturally aerobic - require more surface area but are relatively odor free.
3. Mechanically aerated - comparable in size to anaerobic lagoons but require energy for aeration.

Waste treatment lagoons are located as near the source of waste as possible but as far from human dwellings as possible. The location should also be where prevailing winds will carry odors away from residences and public areas.

To improve efficiency and reduce sludge buildup, solids should be removed from the waste before it enters the lagoon. A solids trap or separator should be installed between the waste source and the lagoon.

Additional information including design criteria and specifications are filed in the local NRCS Field Office Technical Guide.